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10/840,100

05/06/2004

Hsin-Liang Chen

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EXAMINER

SAFAIPOUR, BOBBAK

ART UNIT

PAPER NUMBER

2618

MAIL DATE

DELIVERY MODE

05/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/840,100

Applicant(s)

CHEN, HSIN-LIANG

Examiner

Bobbak Safaipoor

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/27/2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 5/6/2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This Action is in response to Applicant's response filed on 2/27/2007. New **claim 17** has been added. **Claims 1-17** are now pending in the present application. **This action is made FINAL.**

Response to Arguments

Applicant's arguments with respect to independent claim 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Okuda (US 2001/0019946 A1)** in view of **Duarte et al (US 7,107,084)**.

Consider **claim 1**, Okuda et al disclose a folding electronic device (title, abstract) comprising: a body (figures 1-3); an upper housing portion disposed on the body in a manner such that the upper housing portion rotates between a closed position and an open position (figures 2 and 11, paragraphs 79-80); a transmitting member (abstract, paragraphs 79-83; hinge assembly) disposed between the body and the upper housing portion (figure 1-4, paragraphs 79-83) in a manner such that the transmitting member rotates between a first position (figure 11, paragraphs 101, 111-118; closure case) and a second position (figure 11, paragraphs 101, 111-118; full open position), wherein the upper housing portion rotates along with the transmitting member (figures 11, 13-16); and a first elastic member disposed between the transmitting member and the body so as to rotate the transmitting member to the second position (figures 4-8, 11, and 13-6; paragraph 84).

Okuda et al fail to disclose a sliding member disposed in the body in a manner such that the sliding member rotates between a third position and a fourth position so as to rotate the transmitting member, wherein the sliding member is engaged with the transmitting member located in the first position when the sliding member is located in the third position, and the sliding member is disengaged from the transmitting member so that the transmitting member rotates to the second position by the first elastic member and the upper housing portion rotates to the open position from the closed position when the sliding member is moved to the fourth position from the third position.

In related art, Duarte et al disclose a sliding member disposed in the body in a manner such that the sliding member moves between a third position and a fourth position (figures 1a-1g; col. 2, line 43 to col. 3 line 31; The display moves, i.e. from the third to fourth position, as

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pressure is applied to the forward end of the display) so as to rotate the transmitting member, wherein the sliding member is engaged with the transmitting member located in the first position when the sliding member is located in the third position (figures 1a-1g; col. 2, line 43 to col. 3 line 31; For example, when the forward end is not being pushed, the display is in a closed position), and the sliding member is disengaged from the transmitting member so that the transmitting member rotates to the second position by the first elastic member and the upper housing portion rotates to the open position from the closed position when the sliding member is moved to the fourth position from the third position (fig. 1c, col. 3, lines 2-10; The position of the forward end of the display has been pushed further rearward. The rear end of the display has risen even further above the base. The display is raised because the relationship of the engagement and the main pivot and the end of the link. In other words, when the forward end is being pushed, the display moves from a closed position to a open position, depending on how far the forward end has been pushed.).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings Duarte et al into the teachings of Okuda et al so that the mobile terminal can be opened and closed by applying pressure to a forward end (i.e. sliding mechanism) to open the mobile terminal allowing for easier access to the controls of the mobile terminal.

Consider **claim 17**, Okuda et al disclose a folding electronic device comprising: a body (figures 1-3); an upper housing portion disposed on the body and rotatable between a closed position and an open position (figures 2 and 11, paragraphs 79-80); a transmitting member

(abstract, paragraphs 79-83; hinge assembly) disposed between the body and the upper housing portion (figure 1-4, paragraphs 79-83) and rotatable between a first position (figure 11, paragraphs 101, 111-118; closure case) and a second position (figure 11, paragraphs 101, 111-118; full open position), wherein the transmitting member and the upper housing portion are arranged such that the upper housing portion is rotated along with the transmitting member (figures 11, 13-16), and the upper housing portion is in the closed position when the transmitting member is in the first position, and the upper housing portion is in the open position when the transmitting member is in the second position (figures 11, 13-16); and a first elastic member disposed between the transmitting member and the body and biased to rotate the transmitting member to the second position (figures 4-8, 11, and 13-6; paragraph 84);

Okuda et al fail to disclose a sliding member disposed in the body and slidable between a third position and a fourth position, wherein the sliding member and transmitting member are arranged such that the sliding member is engaged with the transmitting member when the transmitting member is located in the first position while the sliding member is located in the third position, the movement of the sliding member from the third position to the fourth position presses the transmitting member to rotate from the first position to an intermediate position between the first position and the second position, and the sliding member is disengaged from the transmitting member when the sliding member reaches the fourth position such that the transmitting member is rotated from the intermediate position to the second position by the first elastic member.

In related art, Duarte et al disclose a sliding member disposed in the body and slidable between a third position and a fourth position (figures 1a-1g; col. 2, line 43 to col. 3 line 31; The

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display moves, i.e. from the third to fourth position, as pressure is applied to the forward end of the display), wherein the sliding member and transmitting member are arranged such that the sliding member is engaged with the transmitting member when the transmitting member is located in the first position while the sliding member is located in the third position (figures 1a-1g; col. 2, line 43 to col. 3 line 31; For example, when the forward end is not being pushed, the display is in a closed position), the movement of the sliding member from the third position to the fourth position presses the transmitting member to rotate from the first position to an intermediate position between the first position and the second position, and the sliding member is disengaged from the transmitting member when the sliding member reaches the fourth position such that the transmitting member is rotated from the intermediate position to the second position by the first elastic member (fig. 1c, col. 3, lines 2-10; The position of the forward end of the display has been pushed further rearward. The rear end of the display has risen even further above the base. The display is raised because the relationship of the engagement and the main pivot and the end of the link. In other words, when the forward end is being pushed, the display moves from a closed position to a open position, depending on how far the forward end has been pushed.)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings Duarte et al into the teachings of Okuda et al so that the mobile terminal can be opened and closed by applying pressure to a forward end (i.e. sliding mechanism) to open the mobile terminal allowing for easier access to the controls of the mobile terminal.

Consider **claim 2**, and **as applied to claim 1 above**, Okuda, as modified by Duarte et al, discloses the claimed invention wherein a second elastic member disposed in the body so as to maintain the sliding member at the third position. (Okuda: figure 3, paragraphs 79-83, 101)

Consider **claim 3**, and **as applied to claim 2 above**, Okuda, as modified by Duarte et al, discloses the claimed invention wherein the elastic force of the second elastic member exceeds that of the first elastic member. (Okuda: figures 4-8, 11, and 13-6; paragraph 84)

Consider **claim 4**, and **as applied to claim 2 above**, Okuda, as modified by Duarte et al, discloses the claimed invention wherein the second elastic member is a compression spring. (Okuda: paragraphs 84-86)

Consider **claim 5**, and **as applied to claim 2 above**, Okuda, as modified by Duarte et al, discloses the claimed invention wherein the body includes a first receiving portion for receiving the second elastic member. (Okuda: paragraphs 79-83)

Consider **claim 6**, and **as applied to claim 2 above**, Okuda, as modified by Duarte et al, discloses the claimed invention wherein the sliding member includes a first protrusion inserting into the second elastic member so that the second elastic member returns the sliding member to the third position. (Duarte et al: figures 1a-1g; col. 2, line 43 to col. 3 line 31)

Consider **claim 7**, and **as applied to claim 2 above**, Okuda, as modified by Duarte et al, discloses the claimed invention wherein the body comprises: a first case on which the first elastic member is fixed; and a second case combined with the first case. (Okuda: paragraphs 79-83)

Consider **claim 8**, and **as applied to claim 7 above**, Okuda, as modified by Duarte et al, discloses the claimed invention wherein the first case includes a second receiving portion for receiving the transmitting member and the first elastic member. (Okuda: abstract, paragraphs 79-83)

Consider **claim 9**, and **as applied to claim 7 above**, Okuda, as modified by Duarte et al, discloses the claimed invention wherein the first case includes a first groove in which the first elastic member is disposed. (Okuda: abstract, paragraphs 79-83)

Consider **claim 10**, and **as applied to claim 7 above**, Okuda, as modified by Duarte et al, discloses the claimed invention wherein each of the first case and the second case includes a concave portion corresponding to the sliding member respectively so that the sliding member slides in the concave portion. (Duarte et al: figures 1a-1g; col. 2, line 43 to col. 3 line 31)

Consider **claim 11**, and **as applied to claim 10 above**, Okuda, as modified by Duarte et al, discloses the claimed invention wherein the sliding member is formed with a slot corresponding to the concave portion. (Duarte et al: figures 1a-1g; col. 2, line 43 to col. 3 line

31)

Consider **claim 12**, and **as applied to claim 1 above**, Okuda, as modified by Duarte et al, discloses the claimed invention wherein the upper housing portion includes a second protrusion, the transmitting member includes a first notch corresponding to the second protrusion, and the transmitting member rotates the upper housing portion by way of the second protrusion engaging the first notch. (Okuda: abstract, paragraphs 79-83)

Consider **claim 13**, and **as applied to claim 1 above**, Okuda, as modified by Duarte et al, discloses the claimed invention wherein the transmitting member includes a second notch, the sliding member includes a third protrusion, and the sliding member engages with the transmitting member by way of the third protrusion abutting the second notch. (Okuda: abstract, paragraphs 79-83)

Consider **claim 14**, and **as applied to claim 1 above**, Okuda, as modified by Duarte et al, discloses the claimed invention wherein the transmitting member includes a second groove in which the first elastic member is fixed. (Okuda: abstract, paragraphs 79-83)

Consider **claim 15**, and **as applied to claim 1 above**, Okuda, as modified by Duarte et al, discloses the claimed invention wherein the first elastic member is a torsional spring. (Okuda: paragraphs 84-86)

Consider **claim 16**, and as **applied to claim 1 above**, Okuda, as modified by Duarte et al, discloses the claimed invention wherein the electronic device is a mobile phone. (Okuda: abstract)

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Bobbak Safaipour whose telephone number is (571) 270-1092. The Examiner can normally be reached on Monday-Friday from 9:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.


Bobbak Safaipour
B.S./bs

May 4, 2007

EDAN ORGAD
PRIMARY PATENT EXAMINER

 5/7/07